

Montana Laboratory Sentinel



Updates from the MT Laboratory Services Bureau
800-821-7284 <http://healthlab.hhs.mt.gov/>

07/14/2010

HPV and its Link to Head & Neck Cancers

“Human Papillomavirus is recognized as an important oncogenic virus in several human cancers. There are more than 200 types of HPV with varying levels of risk.

In 1942, Dr. George Papanicolaou described the conventional Pap smear and its application for screening cervical cytology. This test is heralded as the most significant cancer screening test of our time and went unchanged for more than 50 years.

An evolution in the 1990s of new technologies introduced into the clinical laboratory for the analysis of cytology specimens included automated Pap screening, liquid cytology collections and automated slide processing, as well as the FDA-approval of the first molecular-based Human Papillomavirus (HPV) test to be used with the liquid cytology specimen. HPV's role in cervical cancer was established some 35 years ago, and now HPV is recognized as an important oncogenic virus in several human cancers, including head and neck squamous cell carcinomas (HNSCCs). HNSCC represents the sixth most common malignancy worldwide.¹ In the U.S., cancers of the oral cavity and pharynx are among the top 10 most common cancers in males.....” To read the entire article, go to:

<http://laboratorian.advanceweb.com/Features/Articles/HPV-and-its-Link-to-Head-Neck-Cancers.aspx> June 2010



Biological Warfare in Early Times

American Society for Clinical Laboratory Science – MT
2010 ASCLS-MT Member Paper of the Year
by Walter Walsh, MS, MLS(ASCP)^{CM}

“Biological weapons are viable, based on living organisms. They include, but are not limited to, the use of venom and toxins derived from living organisms. Living organisms turned to the service of war is another type of weapon based on biology. A third type of biological weapon is bacteria, which can multiply in the body to increase effect, and can be contagious. This paper will look at an example from each of the three categories of biological weapons listed above.”

“Lethal pathogens that have been around for millennia and newly genetically engineered microorganism and viruses are more potent and lethal than the methods used by the Scythians, Carthaginians, and Tartars; and of course another reason that biological weapons are so much more deadly today is due to the technological advances in delivery systems.....”

Snake venom, *Clostridium* toxins, plague, elephants..... To read the entire paper go to <http://ascls-montana.asclsregionviii.org/mln.htm>

** This paper may be of interest to our readers, but does not necessarily reflect the official views of DPHHS.



Vivian Schaffer

The Summer issue of the *Montana Laboratory News* contains information about the ASCLS-MT Spring Meeting, award winners, new Board Members, Member Paper of the Year, and a message from the new President, Vivian Schaffer <http://ascls-montana.asclsregionviii.org/mln.htm>

Bioterrorism Preparedness Training for LRN Sentinel Laboratories

July 30 in Helena

Registration is open for the **BT Wet Workshop - July 30, 2010 - Helena MT.**

A one-day presentation and laboratory observation of *Yersinia pestis*, *Brucella spp.*, *Bacillus anthracis*, *Burkholderia spp.*, *Francisella tularensis* and similar agents. Laboratory Response Network protocols, Biosafety, and emergency preparedness issues will be discussed.

We can accept 5 more microbiologists!

Visit www.nltn.org/127-10.htm to register. For questions e-mail Kathy Martinka at kmartinka@mt.gov or call 406-444-0944.

We're Ready

We're Set

Go !



Kathy Martinka, BT Coordinator



Crystal Poppler,
Training Coordinator



Kim Newman, Microbiologist

MT Communicable Disease Update Week 26, Ending 07/03/10

This newsletter is produced by the Montana Communicable Disease Epidemiology Program.

Questions regarding its content should be directed to 406.444.0273 (24/7/365).

<http://cdepi.hhs.mt.gov>

DISEASE INFORMATION

Summary – MMWR Week 26 - Ending 7/03/10 – Disease reports received at DPHHS during the reporting period June 27th through July 3rd, 2010 included the following:

- Vaccine Preventable Diseases: Varicella (6)
- Enteric Diseases: Campylobacteriosis (8), Cryptosporidiosis (1), *E. coli* 0157 (0), Giardiasis (1), Salmonellosis (3), Yersiniosis (1)
- Other Conditions: None
- Travel Related Conditions: None

THE "BUZZ"

West Nile Virus – The mosquitoes are biting and it's time to think about WNV in MT. To date, MT has had no reports of human WNV illness, however, now is the time to start reminding people about the importance of mosquito control measures and WNV prevention. The best protection against WNV is to avoid being bitten by mosquitoes. This can be accomplished by following a few simple guidelines:

- Mosquitoes bite most often at dawn and dusk, wear long pants and long sleeved shirts if you are out during these hours.
- Use a mosquito repellent, DEET is most effective at repelling mosquitoes
- Empty uncovered containers of standing water that may be near or around the home
- Change outdoor pet water frequently

If you'd like "Fight the Bite" posters or brochures contact us at (406) 444-0273. CDC WNV educational materials are available at http://www.cdc.gov/ncidod/dvbid/westnile/prevention_info.htm.

Tick-Bite Associated Rash – Each year in MT, several reports are received describing a localized rash in humans following the bite of a tick. Typically, this rash is **confined to the site of the tick-bite** and expands to a red lesion several centimeters in diameter that may scab over. This rash/lesion may be accompanied by other symptoms (fatigue, fever, headache, myalgia). No infectious agent has been linked to this type of tick-bite associated rash reported in MT. Most tick-bites reported this year that have yielded a rash or lesion of this type have not been accompanied by other symptoms. However, anyone experiencing symptoms of illness following a tick bite, should be evaluated by their physician for tick-borne infectious disease including Rocky Mountain spotted fever, Colorado tick fever, and tularemia. The MT DPHHS is NOT currently collecting ticks from patients with a tick-borne illness or rash. **If an infectious tick-borne illness is suspected:**

- Send an acute serum sample to the Montana Department of Public Health Laboratory for a tick-borne disease serology panel
- Follow-up with a convalescent serum sample 2 – 4 weeks post – illness onset to confirm a four – fold rise in IgG antibody titer
- If RMSF is suspected, do not delay treatment while awaiting lab test results. Doxycycline is the drug of choice for treatment in children and adults. <http://www.cdc.gov/ticks/treatment.html>
- Collect exposure history from patient including a geographic location where a tick bite may have occurred
- Report all suspected and confirmed cases of RMSF to your local health department

More information about tick-borne illness is available on the web at:

<http://www.cdc.gov/ticks/index.html>

http://www.dphhs.mt.gov/PHSD/epidemiology/documents/SS_RMSF_May2010.pdf

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WHAT'S NEW ON THE CDEPI WEB SITE?

- **Bats and Summer Camps in Montana** – This resource assists camp directors and local health departments with bat exclusion and control in summer camp situations.
<http://www.dphhs.mt.gov/PHSD/epidemiology/cdepi-rabies.shtml>
- **Surveillance Snapshot on Rocky Mountain Spotted Fever**
<http://www.dphhs.mt.gov/PHSD/epidemiology/SurveillanceSnapshots.shtml>

NEW! Lyme Disease Testing – Although *Ixodes scapularis*, the tick vector for Lyme disease has not yet been found in MT, Lyme disease is sometimes diagnosed in MT residents that have traveled to Lyme disease endemic areas. Lyme disease can be difficult to diagnose and clinical presentation coupled with specific laboratory testing is necessary to confirm a case of Lyme disease. The current CDC recommendations for laboratory confirmation of Lyme disease include:

- 1) a positive culture for *Borrelia burgdorferi* **OR**
- 2) a two-step process for testing blood –
 - The first step uses an ELISA or IFA test. If this test is positive:
 - A second test using a Western blot should be run to confirm the initial ELISA or IFA test

Serology is the most common test used to test for Lyme disease. A positive ELISA or IFA followed by a positive Western blot coupled with a clinical marker for the disease (erythema migrans (EM), the initial skin lesion that occurs in 60%-80% of patients, with a known exposure, or a late clinical manifestation including rheumatologic, neurologic, and cardiac abnormalities), are necessary to confirm a case of Lyme disease. For more information visit

http://www.cdc.gov/ncidod/dvbid/lyme/ld_human_disease_diagnosis.htm

NEW! Traveler's Health – Summer time brings the opportunity for many Montanans to travel abroad. When it comes to staying healthy while traveling, it is important to be prepared and protected. Some proactive steps can be taken to anticipate issues that could arise while traveling internationally:

- Learn about your destination – awareness of risks can go a long way
- See a doctor prior to travel – routine vaccinations or medications may provide extra protection in some areas
- Consider your health status before travel – special needs and current illness or injury may influence choice of travel destination
- If you become ill shortly after travel, or return ill from a trip, be sure to tell your physician where you were travelling

More information about healthy traveling can be found at <http://wwwnc.cdc.gov/travel/content/survival-guide.aspx>

Stay Away From Bats PSAs – Public Safety Announcements warning children to stay away from bats will begin airing on Montana television and radio stations the week of July 4. This campaign is part of a three year program to educate the public and providers about the prevention of potential rabies exposures. The PSA and materials for camp directors and local health departments can be found at:

<http://www.dphhs.mt.gov/PHSD/epidemiology/cdepi-rabies.shtml>.

Healthy Swimming – The weather is getting warmer and more people will be swimming in Montana.

Follow these six steps for healthy swimming:

- Don't swim when you have diarrhea.
- Don't swallow pool water.
- Practice good hygiene. Shower with soap before swimming and wash your hands after using the toilet or changing diapers. Germs on your body end up in the water.
- Take your kids on bathroom breaks or check diapers often.
- Change diapers in a bathroom or a diaper-changing area and not at poolside.
- Wash your children thoroughly (especially the rear end) with soap and water before they go swimming.

Information about healthy swimming and recreational water illness:

<http://www.cdc.gov/healthywater/swimming/>